

## CLAIMS

[0044] What is claimed is:

1. A system comprising:
  - a hardware component; and
  - a firmware component coupled to said hardware component and able to establish a noise level in a chip.
2. A system according to claim 1, wherein said noise level is a noise level of a receiver of said chip.
3. A system according to claim 1, wherein said noise level is a noise level of a transmitter of said chip.
4. A system according to claim 1, wherein said hardware comprises:
  - at least one digital to analog converter;
  - at least one comparator able to receive output of said converter;
  - at least one register able to be read by said firmware; and
  - at least one register able to be written to by said firmware.
5. A system according to claim 1, wherein said firmware comprises:
  - an approximator; and
  - a fine tuner able to fine tune the approximation of said approximator.
6. A method comprising
  - approximating a first noise level in an individual chip; and
  - fine tuning said first noise level to produce a second noise level.
7. A method according to claim 6, wherein said approximating comprises:
  - determining said first noise level according to a hardware result.

8. A method according to claim 6, wherein said fine tuning comprises:

determining said second noise level according to a hardware  
result.

9. A method according to claim 6, wherein said approximating comprises:

reading from a noise event counter register; and  
writing to a noise floor register.

10. A method according to claim 6, wherein said fine tuning comprises:

reading from a noise register; and  
writing to a noise floor register.

11. A method comprising:

using a firmware solution to compensate for a hardware problem  
in a chip of a noise level with a high standard deviation.

12. A method according to claim 11, wherein said firmware solution is able to  
reduce energy consumption of a chip.

13. A method according to claim 11, wherein said firmware solution is able to  
reduce a space requirement of a hardware solution.

14. A system comprising:

a card; and

a chip attached to said card, said chip comprising:

a hardware component; and

a firmware component coupled to said hardware  
component and able to establish a noise level in said chip.

15. A system according to claim 14, wherein said noise level is a noise level of a  
receiver of said chip.

16.A system according to claim 14, wherein said noise level is a noise level of a transmitter of said chip.

17.A home phone networking system comprising:

two or more computers each having a chip comprising:

a hardware component; and

a firmware component coupled to said hardware component and able to establish a noise level in said chip.

18.A system according to claim 17, further comprising:

one or more peripheral devices coupled to at least one of said computers.